

REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, and in light of the remarks which follow, are respectfully requested.

Claims 23 and 29 have been amended to replace "bead zone" with --bottom zone comprising a bead--. These amendments are supported by the specification, for example, page 1, last paragraph and the paragraph bridging pages 4 and 5. In addition, claim 23 has also been amended to recite that the amount of silica is from 25 phr to 40 phr. This amendment is supported by the specification, for example, page 5, last two paragraphs. Further, claims 1, 36-38, 41 and 42 have been amended to further improve their form, which do not narrow the scope of the claims. Claims 1-22 were previously canceled.

Upon entry of the Amendment, claims 23-42 will be all the claims pending in the application.

I. Response to Rejection under 35 U.S.C. § 112, First Paragraph

Claims 23-42 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in paragraph 3 of the Office Action.

Applicant respectfully submits that the present claims are in compliance with the requirements under 35 U.S.C. § 112 for at least the following reasons.

As described in the specification and further set forth in the Amendment previously filed on July 27, 2006, in a tire, the "bottom zone" comprises one or more bead wires, and one skilled in the art would understand that the term "bottom zone" is equivalent in meaning in the art to the term "bead zone." Therefore, the specification provides sufficient description of the phrase "bead zone" introduced in the previous Amendment.

Nonetheless, to facilitate prosecution, Applicant has amended claims 23 and 29 to replace "bead zone" with --bottom zone comprising a bead--.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection.

II. Response to Rejections under 35 U.S.C. § 103(a)

Claims 23-25, 29-31 and 35-37 are rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,776,206 to Segatta et al. in view of JP 09-302146 for the reasons of record and those set forth in paragraph 5 of the Office Action. Further, claims 26, 27, 32 and 33 are rejected under 35 U.S.C. § 103(a) as being obvious over Segatta et al. in view of JP '146, and further in view of U.S. Patent No. 6,008,295 to Takeichi et al. for the reasons of record. In addition, claims 26, 28, 32 and 34 are rejected under 35 U.S.C. § 103(a) as being obvious over Segatta et al. in view of JP '146 and further in view of U.S. Patent No. 5,844,050 to Fukahori et al. for the reasons of record. Moreover, claims 38-40 are rejected under 35 U.S.C. § 103(a) as being obvious over Segatta et al. in view of JP '146, and further in view of U.S. Patent No. 6,211,278 to Vanel for the reasons of record. Lastly, claims 41 and 42 are rejected under 35 U.S.C. § 103(a) as being obvious over Segatta et al. in view of JP '146 for the reasons set forth in paragraph 9 of the Office Action.

Applicant respectfully submits that the present claims are patentable over the cited references for at least the following reasons.

In the present invention, there uses a composition which is based on a mixture of elastomers, comprising more than 70% of natural rubber or synthetic polyisoprene, in addition to silica in an amount of from 25 phr to 40 phr or 15 phr to 40 phr (see, claims 23 and 29). As a result, the present invention can provide a balance between heating and

improved cohesion and excellent resistance to the mechanical stresses with high deformation (see, e.g., page 3, lines 13-15 of the specification).

Segatta et al. discloses a tire wherein the apex comprises a rubber composition based on (A) 80-97 parts by weight of at least one diene rubber selected from the group consisting of natural rubber or cis 1,4-polyisoprene, synthetic cis 1,4-polyisoprene rubber and cis 1,4-polybutadiene rubber, and (B) about 3 to about 20 parts by weight of trans 1,4-polybutadiene (see, e.g., claim 1). Segatta et al. further describes at page 2, lines 58-65 that the trans 1,4-polybutadiene polymer is considered as "acting as reinforcement before vulcanization" and "restricts flow of the carcass ply into the sidewall rubber during processing and storage prior to curing of the tire."

As the data in Tables I and II show, in the composition of Segatta et al., polybutadiene (cis 4-polybutadiene and trans 1,4-polybutadiene) is used in a very high amount compared to the amount of natural rubber. Specifically, in all Examples A to F, A¹ and B² to E² of Segatta et al, the amount of polybutadiene was 60 or 70%, whereas the amount of natural rubber was 40 or 30%. That is, none of these examples of Segatta et al. contain more than 70% of natural rubber or synthetic polyisoprene. Moreover, Segatta et al. does not fairly suggest a composition containing more than 70% of natural rubber or synthetic polyisoprene.

In addition, JP '146 is relied upon as disclosing the surface areas of carbon black and silica; Takeichi et al. is relied upon as disclosing an additional diene elastomer; Fukahori et al. is relied upon as disclosing modification of additional diene elastomer; and Vanel is relied upon as disclosing a covering agent. None of JP '146, Takeichi et al., Fukahori et al. and Vanel rectify the deficiencies of Segatta et al. Therefore, even if, *arguendo*, there might be motivation to combine JP '146, Takeichi et al., Fukahori et al. and/or Vanel with Segatta et al., the combinations still would not result in the present invention.

In view of the foregoing, Applicant respectfully submits that the present claims are not obvious over the cited references and thus the rejections should be withdrawn.

III. Conclusion

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at (202) 452-7932 at his earliest convenience.

Respectfully submitted,

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